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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,841	08/08/2003	William Delaplaine Green		3345

7590 10/18/2004  
William Delaplaine Green  
8906 Camden Street P.  
Alexandria, VA 22308

EXAMINER

ALI, HYDER

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/637,841	<b>Applicant(s)</b> GREEN, WILLIAM DELAPLAINE	
	<b>Examiner</b> HYDER ALI	<b>Art Unit</b> 3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 and 28-39 is/are allowed.
- 6) ☒ Claim(s) 1-20 and 23-27 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: reference numerals defined in the specification does not describe the engine component as shown by the reference numeral in the drawing. Appropriate correction is required.

The abstract of the disclosure is objected to because it exceeds 150 word maximum. Correction is required. See MPEP § 608.01(b).

The specification is objected to because it is improper to incorporate an IDS therein. IDS must be submitted as a separate paper. See MPEP 609 III. A(1) paragraph 3.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Blaricom (US 5,101,794).

As to Claim 1, Van Blaricom discloses a two cycle internal combustion engine having housing means to provide the necessary spaces in the engine, compressor means 14 to force combustible material into the engine, fuel injection means 18 to inject fuel into the engine for combustion, reciprocating means 1 to compress combustible material held within said housing means between the compressor means and the

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reciprocating means to cause detonation of said combustible material, wherein the improvement comprises the compressor means can compress more combustible material to the combustion process after detonation commences.

As to Claim 2, Van Blaricom discloses the reciprocating means includes crankshaft means to cause reciprocating motion of a reciprocating part, receive a power transfer from the reciprocating part during combustion, and output engine torque.

As to Claim 3, Van Blaricom discloses crankshaft means includes output shaft means to output engine torque.

As to Claim 23, Van Blaricom discloses a two cycle internal combustion engine having housing means to provide the necessary spaces in the engine, compressor means 14 to force combustible material into the engine, fuel injection means 18 to inject fuel into the engine for combustion, reciprocating means 1 to compress combustible material held within said housing between said reciprocating means and said compressor means to cause detonation of said combustible material so the compressor means can compress more combustible material into the combustion process after detonation commences, wherein the improvement comprises valve means 12 to control the movement of fluids within the engine.

As to Claim 24, Van Blaricom discloses a two cycle internal combustion engine having housing means to provide the necessary spaces in the engine, compressor means 14 to force combustible material into the engine, fuel injection means 18 to inject fuel into the engine for combustion, reciprocating means 1 to compress combustible material held within said housing between said reciprocating means and said

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compressor means to cause detonation of said combustible material so the compressor means can compress more combustible material into the combustion process after detonation commences, wherein the improvement comprises ignition means 13 to control when combustion begins.

As to Claim 25, Van Blaricom discloses a two cycle internal combustion engine having housing means to provide the necessary spaces in the engine, compressor means 14 to force combustible material into the engine, fuel injection means 18 to inject fuel into the engine for combustion, reciprocating means 1 to compress combustible material held within said housing between said reciprocating means and said compressor means to cause detonation of said combustible material so the compressor means can compress more combustible material into the combustion process after detonation commences, wherein the improvement comprises throttle means 27 to control the flow of combustible material into the engine.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-14, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Blaricom (US 5,101,794) in view of Weiland (US 4,671,218). Weiland discloses a power transfer means rotatably connecting the positive displacement gear type air compressor with the reciprocating means for a transfer of

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power between them (col. 3, lines 33-36). It would have been obvious to a person having ordinary skill in the art to modify Van Blaricom by employing a power transfer means rotatably connecting the positive displacement gear type air compressor with the reciprocating means for a transfer of power between them in order to replace the compressor.

Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Blaricom (US 5,101,794) in view of Weiland (US 4,671,218) as applied to claims 4-14,26 and 27 above, and further in view of Ishii (US 5,133,309). Ishii discloses exhaust valve 15 for the two-cycle engine. It would have been obvious to a person having ordinary skill in the art to further modify Van Blaricom by employing the exhaust valve in order to control the flow of fluids moving between engine housing.

#### ***Allowable Subject Matter***

Claims 22 and 28-39 are allowed.

Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HYDER ALI whose telephone number is (703) 308-3949. The examiner can normally be reached on M-F (8:00-5:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HENRY YUEN can be reached on (703) 308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Hyden M.*

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*Tony M. Argenbright*  
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Primary Examiner  
Art Unit 3747